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25X1A2g

COUNTRY International

SUBJECT Production and Distribution of Ergot

DATE 21 JUNE 53

PLACE ACQUIRED - - - - -  
 (BY SOURCE) 25X1A6a

Supplement to:

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Responsive to:

DATE (OF INFO) Prior to Jun 53

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1. The main sources of ergot are from European rye grain - Southern France, Spain, and Portugal. It is also produced on a grass in Australia and New Zealand. Although [redacted] that it is also produced or can be produced in the USSR, Hungary, Czechoslovakia, and Bulgaria, for the main agricultural requirement is the presence of rye grain. Some ergot fungus is likely to be present in most European regions through airborne infection.
2. [redacted] ergot cultivation has not been government regulated, although there are regulations governing the sale of contaminated grain in order to prevent epidemics. In addition, there are pharmaceutical regulations preventing the sale of ergot fungus with more than a potency of so many units of activity (measured primarily by its ability to block the action of adrenaline on the uterus).
3. [redacted] photographs of ergot production at the Sandoz Company in Switzerland, and know from these that they use machines for ergot harvesting, inoculation, and production. With this exception, the technique of inoculation is the manual application of the fungus to the plant or the broadcast (i.e. sowing) of the fungus after the grain has reached a certain height. Except for Sandoz, [redacted] human methods are used in cultivation.
4. Raw ergot is collected mainly by machine. The only special feature involved for [redacted] workers in this process which occurs to me, is the desirable use of respirators. [redacted] raw ergot is stored in the same manner as any other grain, except that a small amount of chloroform is added to prevent moulding. However, it is my impression that the grain must be used within one year.

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5. Besides US pharmaceutical houses [S B Perrick, New York City; Eli Lilly, Indianapolis (Ergometrine, European name - Ergonovine, US name); Parke Davis, Detroit; and Sharpe and Dohme, West Point, Penna<sup>7</sup>], Sandoz in Basil, Switzerland is the only producer of ergot and ergot derivatives with which I am familiar. Ergot is produced in three forms: purified ergot alkaloids (pure crystalline compound), fluid extract of ergot, and solid extract of ergot. Ergonovine, Ergobasine, and Ergometrine--all the same product--are produced by water extraction. Other forms of ergot are produced by solvent extraction, a hot process. A fluid extraction or cold process is also used.
6. Work on ergot was done in Japan prior to World War II, I do not know at what institutions. In Western Europe, the following institutions come to mind as those chiefly concerned: UK (Burroughs and Wellcome), France (Rhone Poulenc), Germany (the old E Merck and Company and maybe Schering A G in Berlin and Kahlenbaum (?)). There used to be a Hungarian concern, a large establishment at Charles University, Prague, Czechoslovakia, and a big laboratory at Bucharest, Rumania. Some work was also done in Poland, probably at universities at Lodz, Warsaw and Krakow.

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